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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,612	06/13/2001	Kenji Mukai	NAK1-BP14	7017

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EXAMINER

PHAM, HOA Q

ART UNIT PAPER NUMBER

2877

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,612

Applicant(s)

MUKAI ET AL.

Examiner

Hoa Q. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/8/03 has been entered.

2. The amendment filed 10/08/03 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The equation " $W=aC + 100$ " in claims 2 and 3 is not supported by the original disclosure. The coefficient a in claims 2-3 is a variable number and broader than the specification disclosed, the specification recites that the coefficient a in embodiments 1-3 is a fixed value (-5.3, -4.4, and -3.3).

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al (5,071,727).

Ikeda et al discloses a method for evaluating whiteness of light from a light source comprising the steps of (a) calculating chroma (C) (column 10, lines 20-21), calculating whiteness from the chroma using an equation (1) $w = aC + b$... (it is noted that the equation in column 10, line 7 of Ikeda et al is in the same form of the equation (1) of the present invention). Ikeda et al does not explicitly teach that the chroma is calculated by a method defined by the CIE 1997 Interim Color Appearance Model, however, it would have been obvious to use replace the calculating method of Ikeda et al by this method because they are function in the same manner.

5. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al as applied to claim 1 above, and further in view of Nishino et al (4,469,798).

Ikeda et al does not explicitly teach that the coefficient b is 100 and coefficient a is a negative real number such as -5.3, -3.3, or -4.4. Nishino et al teaches that the whiteness (W) can be calculated from the equation " $W = 100 - (100 - L)^2 + a^2 + b^2$ ", coefficient b is 100 and coefficient a is a variable negative real number (column 8, lines 5-17). Thus, it would have been an obvious at the time the invention was made to modify the equation of Ikeda et al by choosing the different values of the coefficient a

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and b as taught by Nishino et al for the same purpose of determining the whiteness of light emitted from a light source.

Allowable Subject Matter

6. Claim 7 is allowed.

Response to Arguments

7. Applicant's arguments filed 10/8/03 have been fully considered but they are not persuasive.

a. As mentioned above the Ikeda et al reference read on the claimed invention, especially equation in column 10, line 7. As understood, equation can be derives as follow:

$$W=1-1/40\{C^2+[4(10-V)]^2\}^{1/2}$$

$$W= -1/40\{C^2+[4(10-V)]^2\}^{1/2} + 1$$

When: $+[4(10-V)]^2$ is a very small number, we have

$$W= -1/40\{C^2\}^{1/2} + 1$$

Thus, $W=-1/40C + 1$

Let $a= -1/40$ and $b= 1$, $W= aC + b$, therefore the equation is the same as equation claimed in present claim 1.

b. With respect to the amended claims 2-3, claims 2-3 are written in independent claims, which are broader and totally different from the original claims 2-3. In addition, they raise new matter into the disclosure as mentioned above.

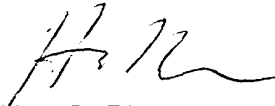
c. Applicant's remarks, page 7, argues that Ikeda does not teach or suggest that the V value approaches a numerical value of 10 or that the term $[4(10-V)]^2$ approaches zero. Applicant is noted that the value V is variable, therefore it could be any value and at the value $V=10$, the reference read on the present claimed invention. Nowhere in Ikeda recites that the value V cannot be 10 or the term $[4(10-V)]^2$ cannot approach to zero. In addition, the two equations W_1 and W_2 are the same when V is equal to 10.

Thus, in view of the foregoing, it is believed that the rejection under 35 U.S.C 103 is proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (571) 272-2426. The examiner can normally be reached on 6:30 AM to 5 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703) 308-4881. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Hoa Q. Pham
Primary Examiner
Art Unit 2877

HP
January 16, 2004